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19319A MLRS MISSILE NUMBERS 469 414 447 ROUND NUMBERS
584/RV-4 585/RV-5 5. (U) ARMY ELECTRONICS RESEARCH AND
DEVELOPMENT COMMAND WSMR NM ATM. D C KELLER MAY 84

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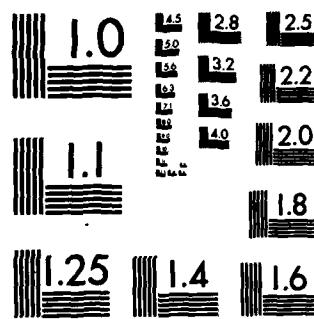
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MICROCOPY RESOLUTION TEST CHART
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DR-1342

May 84

AD

AD-A143 586

METEOROLOGICAL DATA REPORT
19319A MLRS
Missile Number 469, 414, 447
Round Number 584/AV-4, 585/AV-5, 586/AV-6
18 May 1984

by

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ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

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JUL 30 1984

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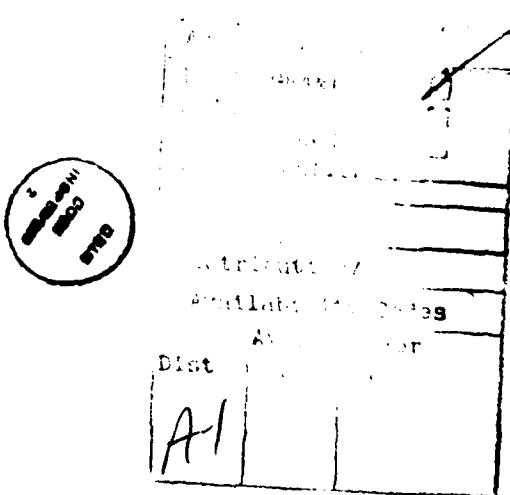
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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of the 19319A MLRS, Missile Number 469, 414, 447, Round Number 584/AV-4, 585/AV-5, 586/AV-6 are presented in tabular form.		

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INTRODUCTION

19319A MLRS, Missile Numbers 469, 414 and 447, Round Numbers 584/AV-4, 585/AV-5 and 586/AV-6, were launched from LC-33, White Sands Missile Range (WSMR), New Mexico at 1413:35, 1413:39 and 1413:44 MDT, 18 May 84. The scheduled launch times were 1400:00, 1400:03.5 and 1400:07 MDT.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico.

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature ($^{\circ}\text{C}$), relative humidity, dew point ($^{\circ}\text{C}$), density (gm/m^3), wind direction and speed, and cloud cover were made at the LC-33 Met Site at T-0 Minutes.

(2) Anemometer data were provided from existing tower-mounted anemometers at LC-33. Monitor of wind speed and direction from one anemometer was also provided in the launch control room.

b. Upper Air

(1) Low level wind data were obtained from Pilot-balloon observations at:

SITE AND ALTITUDE

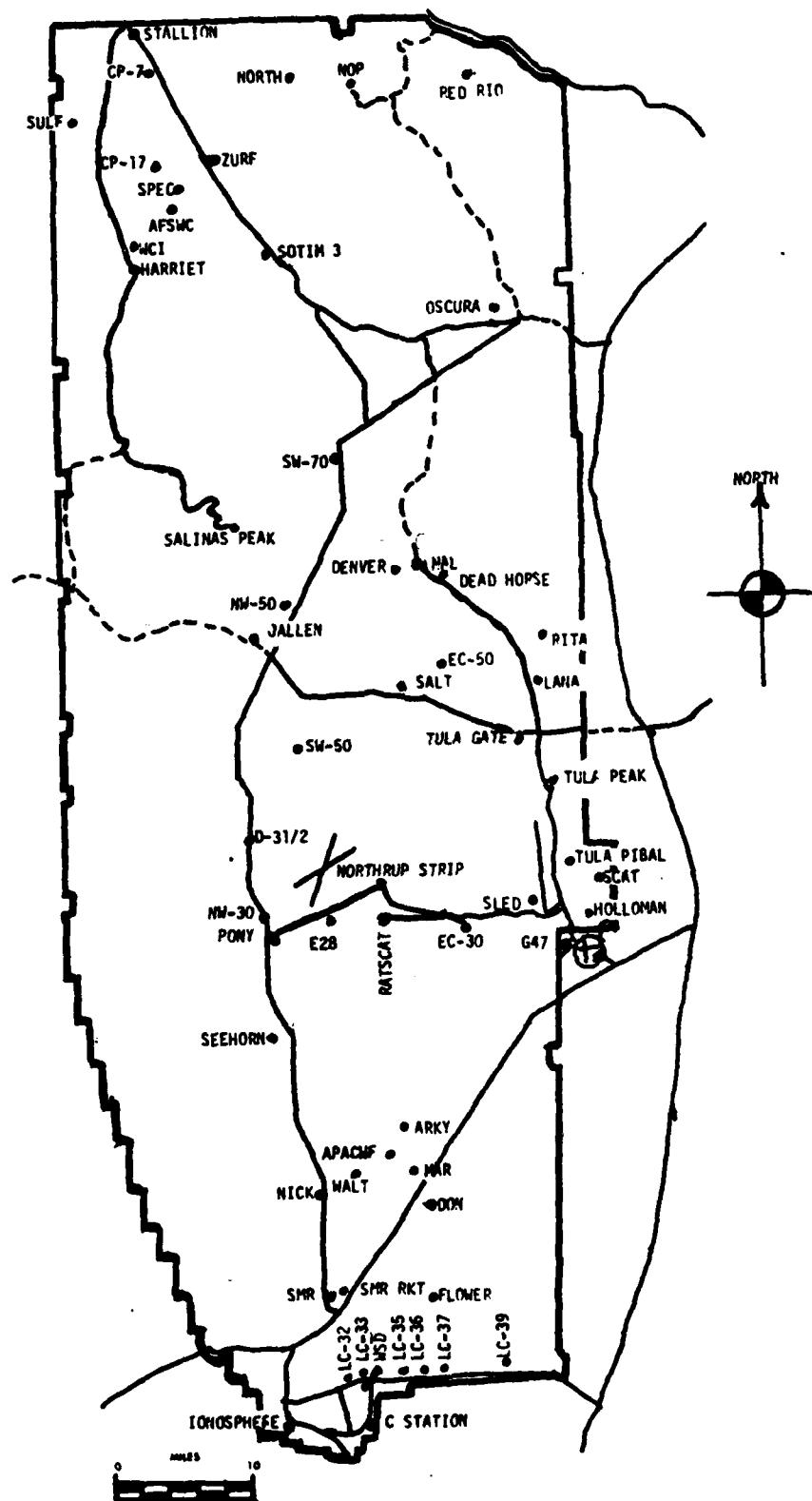
LC-33 2 km

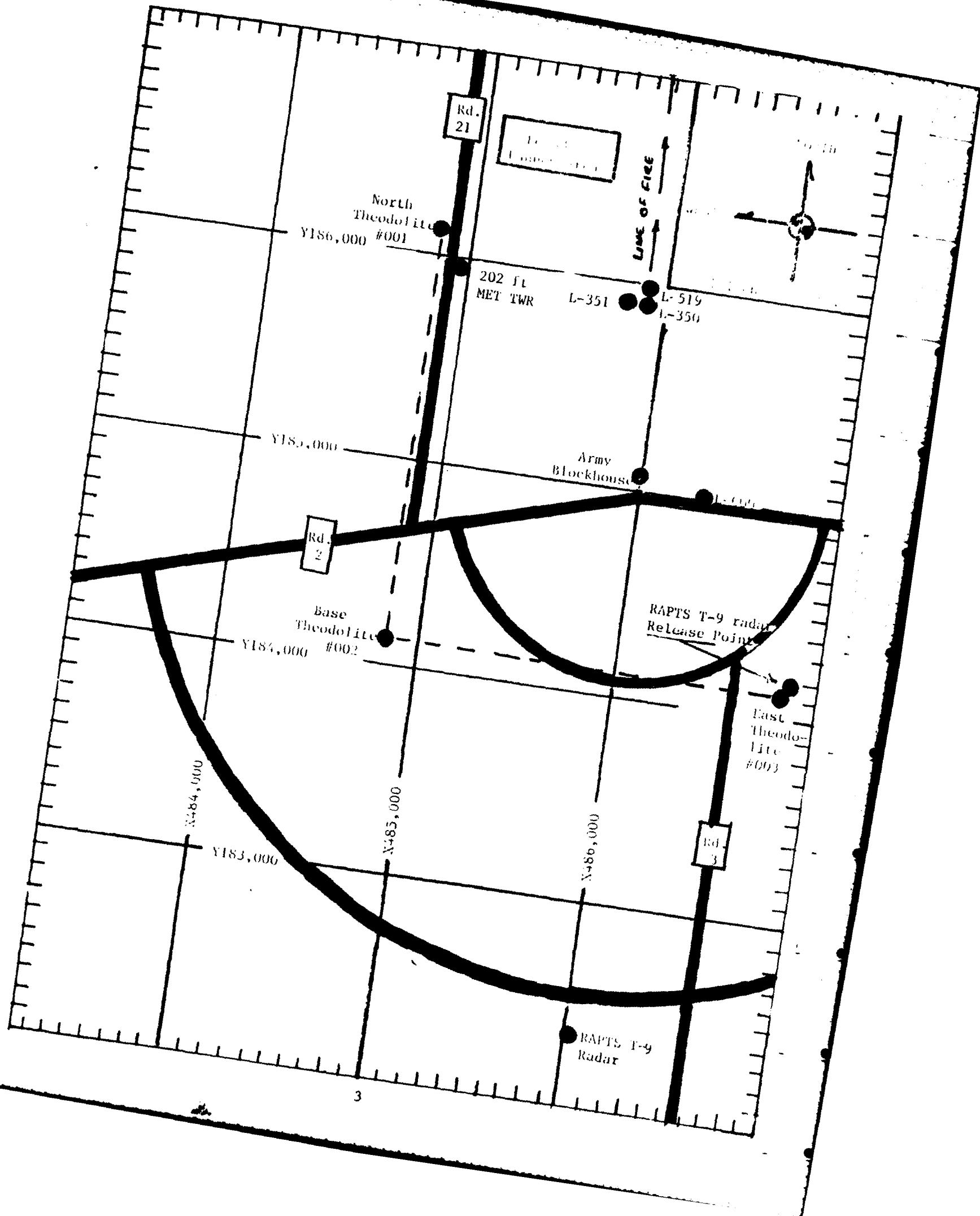
(2) Air structure data (rawinsonde) were collected at the following Met Sites.

SITE AND TIME

WSD	1230 MDT
SMR	1230 MDT
DON	1230 MDT
SMR	1315 MDT
SMR	1413 MDT
DON	1413 MDT
WSD	1512 MDT

WSMR METEOROLOGICAL SITES





PROJECT FLIGHT PERFORMANCE

TABLE 1

DATE 18 MAY 84

TIME 1413

PRESSURE 8804

TEMPERATURE 28.5

DEN. POINT OF 11.7

RELATIVE HUMIDITY 36

VISIBILITY 50

CHARACTER kts

WIND SPEED kts

DIRECTION degs Tn

SENSITIVITY cm/m³

CHARACTER kts

VISIBILITY

CHARACTER kts

VISIBILITY

STATION LC-33

Y = 484.982.64 Y = 185.957.73 h = 3995.00

OBSTRUCTIONS TO VISIBILITY	CLOUDS						REMARKS
	1st LAYER ANT	1st LAYER TYPE	2nd LAYER ANT	2nd LAYER TYPE	3rd LAYER ANT	3rd LAYER TYPE	
5 CB	7000						CB E MOUG SW V

PSYCHROMETRIC COMPUTATION

TIME: MDT	1413		
DRY BULB TEMP.	28.5		
WET BULB TEMP.	17.5		
WET BULB DEPR.	11.0		
DEN. POINT	11.7		
RELATIVE HUMID.	36		

LC-33 METEOROLOGICAL TOWER
ANEMOMETER MEASURED WIND DATA

WSTM COORDINATES X=484,982.64 Y=185,957.73 H=3983.00 (BASE)

TABLE NO. 2

DATE 18 May 1984 1413:35 M D T
DAY MONTH YEAR TIME

LEVEL #1			LEVEL #2			62 FT AGL		
T-TIME (SEC)	DIR (DEG)	SPEED (KTS)	T-TIME (SEC)	DIR (DEG)	SPEED (KTS)			
T-30	323	12	T-30	288	12			
T-20	285	11	T-20	326	15			
T-10	313	19	T-10	310	20			
T- 0 (1st T)	318	14	T- 0 (1st T)	314	20			
T+10	315	13	T+10	308	19			
T+20	325	14	T+20	303	13			
T+30	322	12	T+30	307	13			
T+40			T+40					
T+50			T+50					
T+60			T+60					
LEVEL #3			LEVEL #4			202 FT AGL		
T-TIME (SEC)	DIR (DEG)	SPEED (KTS)	T-TIME (SEC)	DIR (DEG)	SPEED (KTS)			
T-30	320	12	T-30	305	21			
T-20	320	20	T-20	297	22			
T-10	307	24	T-10	294	19			
T- 0 (1st T)	312	20	T- 0 (1st T)	300	20			
T+10	301	20	T+10	303	19			
T+20	296	17	T+20	311	18			
T+30	315	15	T+30	304	13			
T+40			T+40					
T+50			T+50					
T+60			T+60					

TABLE 3

PILOT-BALLOON MEASURED WIND DATA

DATE 18 May 1984

SITE: LC-33
 TIME: 1315 MDT
 WSTM COORDINATES:
 X= 486,037.24
 Y= 182,350.16
 H= 3,977.30

SITE: LC-33
 TIME 1345 MDT
 WSTM COORDINATES:
 X= 486,037.24
 Y= 182,350.16
 H= 3,977.30

LAYER	MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE		160	06
150		136	03
210		133	09
270		147	09
330		147	04
390		167	06
500		115	06
650		059	07
800		050	07
950		350	04
1150		016	04
1350		338	07
1550		308	07
1750		315	07
2000		288	07

LAYER	MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE			CALM
150		158	01
210		152	06
270		094	07
330		184	02
390		345	03
500		205	02
650		274	04
800		262	05
950		245	08
1150		240	06
1350		235	03
1550		210	09
1750		240	06
2000		249	11

All data obtained from RAPTS T-9 radar Tracked pilot-balloon observations.

TABLE 3 Con't

T-TIME PILOT-BALLOON MEASURED WIND DATA

DATE 18 May 1984

SITE: LC-33
 TIME: 1414 MDT
 WSTM COORDINATES:
 X= 486,037.24
 Y= 182,350.16
 H= 3,977.30

SITE:
 TIME
 WSTM COORDINATES:
 X=
 Y=
 H=

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	320	04
150	266	02
210	290	09
270	287	05
330	255	06
390	260	10
500	261	10
650	247	12
800	261	11
950	264	07
1150	MISG	
1350	273	11
1550	273	08
1750	242	08
2000	251	08

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE		
150		
210		
270		
330		
390		
500		
650		
800		
950		
1150		
1350		
1550		
1750		
2000		

TABLE 4

AIMING AND T-TIME COMPUTER MET MESSAGES

18 May 1984

WSD 1230 MDT	SMR 1230 MDT	DON 1230 MDT	SMR 1315 MDT
METCM1324064	METCM1325064	METCM1326063	METCM1325064
181850122881	181850122881	181850122879	181930122880
00160005 30140881	00089004 30200881	00604007 30150879	00000000 30360880
01015007 29890871	01147007 29840871	01071019 29920869	01343002 29900870
02570004 29610846	02249006 29600846	02638008 29630845	02460005 29620846
03586010 29210808	03123003 29190808	03028008 29160806	03511006 29250807
04553008 28720762	04608004 28710762	04529009 28680760	04507013 28800761
05550018 28300718	05522014 28270717	05530016 28300716	05486013 28330717
06505017 27970675	06497021 27980675	06512017 27910674	06504016 27870675
07489020 27600635	07481022 27580635	07486019 27500634	07497023 27510635
08470018 27200597	08474020 27040597	08478019 27100595	08510023 27220596
09549020 26940561	09532021 26860560	09535022 26820559	09557020 26960560
10551020 26610526	10555019 26550526	10546019 26560524	
11568015 26210493	11554021 26180493	11556017 26200492	
12558019 25730447	12561020 25730446	12554020 25750446	
SMR 1413 MDT	DON 1413 MDT	WSD 1512 MDT	
METCM1325064	METCM1326063	METCM1324064	
182020122880	182020122878	182120122879	
00427008 30410880	00213010 30260878	00516010 30410879	
01571015 30190870	01341002 30070868	01465008 30270869	
02499011 29780845	02348009 29770844	02451011 29840844	
03497010 29400807	03361004 29380806	03469010 29450806	
04552009 28920762	04439007 28890760	04463009 28990761	
05555011 28420718	05463015 28410716	05491010 28500717	
06530012 27960675	06488017 27900674	06512008 27990675	
07502013 27510635	07481024 27530634	07479028 27520635	
08480020 27110597	08496023 27200595	08516019 27120596	
09528025 26790560	09548022 26880559	09531023 26790560	
10552021 26650526	10561024 26450525	10546024 26470525	
11580019 26300493	11560023 26170492	11567022 26200492	
12569016 25740447	12563017 25770445	12566016 25760446	

STATION ALTITUDE 3989.00 FEET MSL
18 MAY 84 1230 MDT
ASCENSION NO. 285

SIGNIFICANT LEVEL DATA

1990020285

WHITE SANDS

TABLE 5

GEODETIC COORDINATES
32.60043 LAT DEG
106.37033 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE METERS MSL	TEMPERATURE DEGREES CENTIGRADE	REL-HUM. PERCENT	
			AIR	DEWPNT
981.0	3989.0	27.0	8.9	32.0
975.9	4156.8	26.9	5.7	29.0
950.0	5016.7	22.0	6.7	37.0
796.6	6849.4	16.4	5.7	49.0
746.4	8654.0	11.1	4.3	63.0
722.6	9560.7	9.1	1.0	57.0
713.7	9876.0	8.7	-5.5	36.0
700.0	10406.2	8.0	-6.1	36.0
540.3	12799.8	3.0	-9.3	60.0
603.3	14373.1	-1.2	-9.1	55.0
572.6	15736.9	-3.4	-23.7	19.0
569.4	16810.1	-4.3	-25.0	18.0
500.0	19222.7	-10.5	-30.2	18.0
427.1	23153.9	-18.1	-37.1	17.0
400.0	24755.0	-21.4	-40.4	16.0
367.1	26816.0	-26.7	-43.8	18.0

STATION ALTITUDE 3989.00 FEET MSL
10 MAY 84 1230 MDT
ASCENSION NO. 285

UPPER AIR DATA
1790020285
WHITE SANDS
TABLE 6

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE PSL FEET	PRESSURE MILLIBARS	TEMPERATURE DEGREES CENTIGRADE	AIR DE-POINT PERCENT	REL.HUM. PERCENT	GM/CUBIC METER	SOUND KNOTS	DIRECTION DEGREES(N)	WIND DATA KNOTS	INDEX OF REFRACTION
3989.0	881.0	27.0	8.9	32.0	1017.5	676.6	90.0	5.1	4.000275
4000.0	880.7	26.9	8.7	31.8	1017.7	676.4	89.7	5.0	4.000274
4500.0	865.5	23.7	0.2	32.2	1011.3	672.7	64.0	3.2	4.000266
5030.0	850.5	22.1	6.6	36.8	999.3	670.8	14.1	2.8	4.000265
5530.0	835.6	20.5	6.5	40.2	986.8	669.1	340.3	4.4	4.000263
6000.0	820.9	19.0	6.3	43.4	974.6	667.3	326.4	6.6	4.000260
6500.0	806.5	17.5	6.0	46.7	962.5	665.6	320.9	8.5	4.000256
7000.0	792.3	16.0	5.6	50.2	950.5	663.9	321.7	8.4	4.000253
7530.0	778.1	14.5	5.3	54.0	938.3	662.2	322.3	8.5	4.000250
8000.0	764.2	13.0	4.9	57.9	926.3	660.5	316.3	9.7	4.000247
8500.0	750.6	11.0	4.5	61.8	914.5	658.7	311.7	10.9	4.000243
9000.0	737.0	10.3	3.1	60.7	902.2	657.2	308.3	12.7	4.000241
9500.0	723.7	9.2	1.2	57.3	889.8	655.8	305.8	14.6	4.000240
10000.0	710.5	8.5	-5.7	36.0	876.8	654.5	303.9	16.6	4.000239
10500.0	697.5	7.8	-6.3	36.2	867.1	653.7	298.2	17.3	4.000238
11000.0	684.7	6.8	-6.9	37.0	850.4	652.4	292.6	18.2	4.000237
11500.0	672.0	5.7	-7.5	37.8	837.9	651.2	287.5	19.1	4.000236
12000.0	659.6	4.7	-8.2	38.7	825.6	650.0	282.4	19.2	4.000235
12500.0	647.5	3.6	-8.8	39.5	813.5	648.7	277.3	19.4	4.000234
13000.0	635.5	2.5	-9.1	41.9	801.7	647.4	272.7	19.3	4.000233
13500.0	623.6	1.1	-9.0	46.7	790.5	645.8	268.5	19.0	4.000232
14000.0	611.9	-1.4	-9.0	51.4	779.5	644.2	266.7	18.8	4.000231
14500.0	600.4	-1.4	-10.0	51.7	769.3	642.8	269.1	18.6	4.000230
15000.0	599.0	-2.2	-14.4	38.5	756.3	641.7	273.1	18.3	4.000229
15500.0	577.8	-3.0	-20.1	25.3	744.6	640.6	286.2	18.3	4.000228
16000.0	566.8	-3.0	-26.0	18.8	732.2	639.8	298.6	19.3	4.000227
16500.0	556.0	-4.0	-24.6	18.3	719.3	639.3	305.0	19.4	4.000226
17000.0	545.3	-4.0	-25.4	18.0	707.5	638.4	310.8	19.7	4.000225
17500.0	534.8	-6.1	-26.5	18.0	697.2	636.8	312.2	19.2	4.000224
18000.0	524.5	-7.4	-27.5	18.0	687.1	635.3	312.1	18.4	4.000223
18500.0	514.3	-8.6	-26.6	18.0	677.1	633.7	313.4	17.6	4.000222
19030.0	504.4	-9.9	-29.7	18.0	667.3	632.2	315.9	16.8	4.000221
19530.0	494.5	-11.0	-20.6	17.9	655.9	630.8	318.6	16.1	4.000220
20000.0	484.7	-12.0	-31.5	17.8	644.3	629.7	320.6	16.3	4.000219
20500.0	475.0	-13.0	-32.4	17.7	635.9	628.5	322.5	16.5	4.000218
21000.0	465.0	-13.9	-33.3	17.5	625.6	627.3	321.0	17.2	4.000217
21500.0	455.0	-14.9	-34.2	17.4	615.5	626.1	318.3	16.5	4.000216
22000.0	447.3	-15.9	-35.0	17.3	605.5	625.0	315.2	19.9	4.000215
22500.0	436.4	-16.8	-35.9	17.2	595.8	623.8	311.0	19.5	4.000214
23030.0	429.7	-17.6	-36.8	17.0	586.2	622.6	308.4	19.2	4.000213

STATION ALTITUDE 3939.63 FEET MSL
16 MAY 84 1230 MDT
ASCENSION NO. 285

UPPER AIR DATA
190020285
WHITE SANDS

GEODETIC COORDINATES
32.4043 LAT DEG
106.37033 LON DEG

TABLE 6 Con't

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
23500.0	421.1	-18.8	37.8	16.8	576.6	621.4	308.6	18.9
24000.0	412.6	-19.8	38.8	16.5	567.3	620.1	311.9	18.8
24500.0	404.2	-20.9	39.9	16.2	558.1	618.8		1.000125
25000.0	395.9	-22.0	40.8	16.0	549.2	617.4		1.000123
25500.0	387.6	-23.5	41.6	16.7	540.6	615.6		1.000121
26000.0	379.8	-24.6	42.4	17.2	532.2	614.2		1.000119
26500.0	372.0	-25.9	43.2	17.7	524.0	612.6		1.000118

STATION ALTITUDE 3989.00 FEET MSL
18 MAY 84 1230 MDT
ASCENSION NO. 285

MANUFACTORY LEVELS
1390020285
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 7

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE		REL.HUM. PERCENT	WIND DATA	
		DEGREES DEGREES	AIR DEWPNT DEGREES CFTIGRADE		DIRECTION DEGREES(TIN)	SPEED KNOTS
850.0	5013.	22.0	6.7	37.	12.7	2.9
800.0	6725.	16.8	5.8	68.	321.3	8.5
750.0	8514.	11.5	4.5	62.	311.5	11.0
700.0	10394.	6.0	-6.1	36.	299.4	17.2
650.0	12185.	3.8	-8.7	39.	278.3	19.3
600.0	14500.	-1.4	-10.2	51.	269.1	18.6
550.0	16760.	-4.3	-25.0	18.	308.2	19.5
500.0	19195.	-10.5	-30.2	16.	317.0	16.5
450.0	21839.	-15.6	-34.8	17.	316.1	19.5
400.0	24713.	-21.4	-40.4	16.		

STATION ALTITUDE 5997.10 FEET MSL
 16 MAY 84 1230 MDT
 ASCENSION NO. 52

SIGNIFICANT LEVEL DATA
 17900000.52
 S = P

GEODETIC COORDINATES
 32.48034 LAT DEG
 106.42307 LON DEG

TABLE 8

PRESSURE GEOMETRIC MILLIBARS	ALTITUDE MSL FEET	TEMPERATURE		
		AIR DEGREES	DEWPNT CENTIGRADE	REL. HUM. PERCENT
581.0	3997.3	27.2	10.8	36.0
976.4	4146.4	24.3	-2.3	17.0
965.6	4470.8	23.6	8.7	39.0
950.0	5023.7	21.8	8.0	41.0
771.5	7747.3	13.6	4.7	55.0
790.0	10409.4	6.7	2.2	73.0
666.5	11010.0	6.5	-8.2	36.0
571.6	11526.9	6.3	-8.0	35.0
614.2	13905.8	-1.4	-9.8	49.0
591.2	14901.8	-4.7	-11.3	60.0
573.3	15698.0	-4.4	-17.9	34.0
559.6	16324.3	-4.5	-25.2	18.0
543.9	17359.5	-5.5	-25.4	19.0
500.0	19297.7	-11.0	-29.0	21.0
460.7	21263.5	-14.1	-32.6	19.0
400.0	24737.9	-21.9	-39.7	18.0

STATION ALTITUDE 5997.7 FEET PSL
13 MAY 84
ASCENSION NO. 5
1230 MDT

UPPER AIR DATA
139060052
S P R

TABLE 9

GEOMETRIC PRESSURE ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES MILLIBARS	DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES(TN)	WIND DATA KNOTS	INDEX OF REFRACTION
3997.3	681.0	27.2	10.6	36.0	1016.1	677.1	50.0	4.1
4030.0	680.9	27.1	10.7	35.7	1016.3	677.0	50.0	4.1
4500.0	665.7	23.3	6.0	39.1	1012.3	672.4	57.0	3.8
5000.0	650.7	21.9	3.0	40.9	999.7	670.7	64.9	3.6
5540.0	615.7	20.4	7.5	43.4	997.2	669.0	73.5	3.5
6030.0	621.0	18.9	7.0	46.0	974.9	667.3	82.7	3.4
6500.0	606.5	17.4	6.4	48.6	962.8	665.5	74.3	2.8
7000.0	592.3	15.8	5.6	51.2	950.3	663.7	40.1	2.2
7500.0	778.3	14.3	5.1	53.7	939.1	662.0	359.9	2.6
8000.0	764.4	12.9	4.6	56.7	926.3	660.3	323.2	4.1
8500.0	750.6	11.6	6.2	60.1	916.3	658.8	309.3	6.4
9030.0	737.0	10.4	3.7	63.5	901.9	657.3	299.8	9.3
9530.0	723.6	9.1	3.2	66.9	889.7	655.8	294.3	12.5
10030.0	710.5	7.8	6.7	70.2	877.7	654.2	290.5	15.2
10500.0	697.7	6.7	1.0	67.1	865.5	652.8	286.7	16.9
11000.0	684.9	6.5	-8.0	34.7	851.5	652.1	283.7	18.6
11500.0	672.3	6.3	-8.0	34.9	834.5	651.9	279.3	19.6
12000.0	659.8	5.0	-8.2	37.8	824.9	650.3	275.1	20.6
12500.0	647.5	3.6	-6.5	60.7	813.6	648.7	272.4	21.3
13000.0	635.5	2.2	-8.9	43.7	802.6	647.0	270.9	21.6
13500.0	623.6	1.7	-9.4	46.6	791.5	645.3	269.4	21.9
14000.0	612.0	-0.8	-9.9	50.0	781.4	643.5	271.0	21.5
14530.0	600.4	-3.0	-10.6	55.6	772.8	640.9	273.5	21.0
15000.0	589.0	-4.7	-11.9	56.8	761.0	638.8	276.1	20.5
15500.0	577.7	-4.5	-15.9	40.5	748.2	638.9	283.3	19.9
16000.0	566.7	-4.4	-20.9	26.3	734.1	638.8	290.6	19.7
16500.0	555.6	-4.7	-25.2	18.2	721.0	638.6	297.2	19.5
17030.0	545.2	-5.4	-25.4	18.9	709.0	637.6	302.9	19.4
17500.0	534.6	-6.0	-26.1	19.4	698.4	636.2	308.6	19.4
18000.0	524.2	-7.9	-26.9	19.9	688.2	634.6	310.5	19.5
18500.0	514.1	-9.2	-27.8	2.3	678.1	633.1	312.0	19.7
19030.0	504.1	-10.5	-28.6	20.6	668.2	631.5	313.3	19.9
19500.0	494.2	-11.4	-29.5	20.7	657.6	630.4	314.1	20.3
20000.0	484.5	-12.2	-30.4	20.2	646.5	629.6	314.8	20.7
20500.0	474.9	-12.9	-31.2	19.7	635.6	628.5	315.2	20.8
21030.0	465.0	-13.7	-32.1	19.3	624.9	627.6	315.0	20.4
21530.0	456.3	-14.6	-33.1	18.9	614.7	626.5	314.9	20.1
22000.0	447.1	-15.6	-34.1	18.8	605.7	625.1	314.7	19.7
22500.0	438.1	-16.9	-35.1	18.6	595.4	623.7	314.6	19.1
23000.0	429.3	-18.0	-36.2	18.5	586.0	622.4	314.5	18.7

STATION ALTITUDE 3997.30 FEET MSL
18 MAY 84 1230 MDT
ASCENSION NO. 5.

UPPER AIR DATA
1390C60052
S Δ R

TABLE 9 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	DEENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(T4)	INDEX OF REFRACTION
23530.0	420.7	-19.1	-37.2	16.4	576.7	621.0	1.000130
24000.0	412.2	-20.2	-16.2	18.2	567.6	619.6	1.000128
24530.0	403.9	-21.4	-39.2	18.1	558.7	618.2	1.000126

STATION ALTITUDE 997.1 FEET MSL
 10 MAY 84 1230 NDT
 16 MM 46056 ASCENSION NO.

MANUFACTORY LEVELS
 1390600052
 S W R
 TABLE 10

GEODETIC COORDINATES
 32.46056 LAT DEG
 106.42307 LONG DEG

PRESSURE, GEOPOTENTIAL MILLIBARS	FEET	DEGREES	TEMPERATURE AIR DEWPOINT CENTIGRADE	PERCENT	REL. HUM.		WIND DATA DIRECTION DEGREES (T4) KNOTS
					REL. HUM.	WIND DATA SPEED	
857.0	5020.	21.8	8.0	41.	65.2	3.6	
807.0	6731.	16.7	6.1	50.	60.4	2.4	
750.0	8520.	11.6	4.2	60.	30.9	6.5	
700.0	10399.	6.7	2.2	73.	26.7	16.6	
650.0	12391.	3.8	-8.6	40.	27.2	21.2	
600.0	14501.	-3.0	-10.6	56.	27.5	20.9	
550.0	16750.	-5.1	-25.3	19.	30.2	19.4	
500.0	19181.	-11.0	-29.0	21.	31.6	20.1	
450.0	21815.	-15.4	-35.8	19.			
400.0	24697.	-21.9	-39.7	18.			

STATION ALTITUDE 6,131.69 FEET MSL
 18 MAY 84 1230 MDT
 ASCENSION NO. 3

SIGNIFICANT LEVEL DATA

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GEODETIC COORDINATES
 32.57209 LAT DEG
 106.29439 LON DEG

TABLE 11

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	
		1400	1600
679.4	4073.7	26.9	14.3
559.2	4340.8	24.5	4.3
450.0	4980.7	22.6	5.5
788.4	7102.0	15.0	3.8
756.4	8140.4	12.4	5.6
721.0	9563.5	9.6	-5.1
700.0	10367.6	7.9	-3.3
693.0	10639.5	7.0	-3.2
671.5	11984.4	5.2	-10.5
664.4	15156.4	-3.9	-10.3
567.0	15939.8	-4.7	-24.7
533.4	17514.2	-6.6	-26.9
500.0	19162.5	-10.6	-29.7
484.3	19967.8	-11.8	-31.8
465.5	20650.9	-13.2	-33.0
429.9	22937.6	-17.4	-36.5
414.9	23809.9	-19.2	-38.6
400.0	24700.2	-22.0	-39.8

STATION ALTITUDE 4013.69 FFET MSL
16 MAY 84 1230 MDT
ASCENSION NO. 5

UPPER AIR DATA
1390000005
NOV

GEOGRAPHIC COORDINATES
32.57209 LAT DEG
106.29439 LON DEG
1

GEOMETRIC ALTITUDE METERS	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TIN) KNOTS	INDEX OF REFRACTION
4035.7	879.4	26.9	16.3	4.60	1013.8	677.2	1.0000295
4500.0	864.4	24.0	4.7	28.5	1000.5	672.8	1.0000262
5000.0	849.4	22.3	5.5	33.1	996.7	671.2	1.0000261
5500.0	834.5	20.7	5.3	36.4	985.2	669.2	1.0000259
6000.0	819.8	18.9	5.0	39.7	973.8	667.2	1.0000256
6500.0	805.4	17.4	4.5	43.0	962.7	665.1	1.0000252
7000.0	791.3	15.4	3.9	46.3	951.7	663.0	1.0000249
7500.0	777.2	14.0	2.8	50.1	930.1	661.5	1.0000246
8000.0	763.3	12.6	3.7	53.9	926.4	660.0	1.0000243
8500.0	749.5	11.7	1.6	49.9	913.5	658.6	1.0000236
9000.0	736.0	10.7	-1.4	42.9	900.7	657.3	1.0000227
9500.0	722.7	9.7	-4.6	35.9	888.0	656.0	1.0000218
10000.0	709.5	8.7	-4.0	40.4	874.9	654.8	1.0000217
10500.0	696.6	7.5	-3.3	46.5	862.5	653.5	1.0000215
11000.0	683.8	6.2	-6.1	40.8	850.8	651.9	1.0000208
11500.0	671.2	5.4	-10.5	31.1	838.8	650.4	1.0000200
12000.0	658.6	3.9	-10.0	35.2	826.7	649.0	1.0000198
12500.0	646.3	2.7	-9.8	39.3	814.8	647.6	1.0000196
13000.0	634.1	1.4	-9.6	43.6	803.1	646.1	1.0000194
13500.0	622.2	0.2	-9.6	47.5	791.6	644.7	1.0000191
14000.0	610.6	-1.0	-9.7	51.5	780.2	643.2	1.0000189
14500.0	599.1	-2.3	-9.9	55.6	769.1	641.8	1.0000186
15000.0	587.9	-3.5	-10.2	59.7	758.1	640.3	1.0000184
15500.0	576.7	-4.3	-15.0	42.6	746.2	639.2	1.0000176
16000.0	565.7	-4.8	-24.8	19.0	733.9	638.4	1.0000168
16500.0	554.8	-5.4	-25.5	18.6	721.4	637.7	1.0000165
17000.0	544.1	-6.0	-26.2	18.3	709.2	636.9	1.0000162
17500.0	533.7	-6.6	-26.9	18.0	697.1	636.2	1.0000159
18000.0	523.3	-7.8	-27.7	18.3	686.7	634.0	1.0000156
18500.0	513.2	-9.0	-28.6	18.6	676.5	633.3	1.0000154
19000.0	503.2	-10.2	-29.4	18.9	666.4	631.8	1.0000151
19500.0	493.4	-11.1	-30.6	18.2	655.6	630.8	1.0000149
20000.0	483.7	-11.9	-31.9	17.0	644.6	629.8	1.0000147
20500.0	474.1	-12.7	-35.6	17.0	634.0	628.8	1.0000145
21000.0	464.8	-13.6	-35.3	17.0	623.6	627.7	1.0000141
21500.0	455.5	-14.0	-34.1	17.0	613.5	626.5	1.0000139
22000.0	446.4	-15.6	-35.0	17.0	603.6	625.3	1.0000136
22500.0	437.3	-16.5	-35.8	17.0	593.8	624.1	1.0000134
23000.0	428.8	-17.0	-36.6	16.9	584.3	622.9	1.0000132
23500.0	420.2	-18.0	-37.6	16.4	574.8	621.7	1.0000129

TABLE 12

STATION ALTITUDE 4013.69 FEET MSL
16 MAY 84 1230 MDT
ASCENSION NO. 5

UPPER AIR DATA
1790200005
DON

GEODETIC COORDINATES
32.57209 LAT DEG
106.29439 LONG DEG

TABLE 12 Con't

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL.HUM. PERCENT	SPEED OF SOUND METER KNOTS	DIRECTION DEGREES (T) KNOTS	WIND DATA INDEX OF REFRACTION
24000.0	411.7	-19.8	-38.8	16.4	566.0	620.2
24500.0	403.3	-21.4	-39.5	17.6	557.9	618.2

STATION ALTITUDE 4003.69 FEET MSL
18 MAY 84 1230 MDT
ASCENSION NO. 5

MANDATORY LEVELS
1190200005
DON
TABLE 13

GEODETIC COORDINATES
32.57209 LAT DEG
106.29459 LON DEG

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE DEGREES	AIR DEPOINT CENTIGRADE	REL.HUM. PERCENT	WIND DATA DIRECTION DEGREES(TN)	WIND SPEED KNOTS
850.0	4977.	22.6	5.5	35.	345.0	6.6
800.0	6689.	16.5	4.3	44.	357.9	6.2
750.0	8476.	11.7	1.7	50.	298.0	10.8
700.0	10357.	7.9	-3.3	45.	296.6	15.5
650.0	12345.	3.1	-9.8	38.	275.9	18.4
600.0	14333.	-2.2	-9.0	55.	272.8	18.9
550.0	16706.	-5.6	-25.8	19.	301.9	20.2
500.0	19156.	-10.6	-29.7	19.	311.0	17.9
450.0	21773.	-15.2	-34.6	17.	311.2	19.0
400.0	24659.	-22.0	-39.8	18.		

STATION ALTITUDE 3997.30 FEET MSL
18 MAY 84 1215 MDT
ASCENSION NO. 51

SIGNIFICANT LEVEL DATA
1790060053
6 m R
TABLE 14

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT
860.2	3997.3	28.7 10.8	33.0
378.3	4060.0	25.5 5.1	27.0
350.0	4999.2	22.2 6.7	32.0
770.8	7753.5	14.7 3.2	46.0
726.9	9446.0	9.8 2.6	61.0
700.0	10397.2	7.4 0.6	62.0
682.4	11094.7	5.7 -5.9	43.0
657.0	12100.2	3.2 -9.7	38.0
637.2	12913.5	2.0 -16.9	23.0
612.3	13965.7	-6 -11.3	44.0
596.1	14658.9	-1.5 -24.0	16.0
582.2	15286.7	-1.2 -23.7	16.0
527.2	17856.2	-7.6 -27.7	18.0

STATION ALTITUDE 3997.30 FEET MSL
 18 MAY 84 1315 MDT
 ASCENSION NO. 51

UPPER AIR DATA
 1390060753
 S M R

GEODETIC COORDINATES
 32.46034 LAT DEG
 106.42307 LDN DEG

TABLE 15

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEWEPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	INDEX OF REFRACTION
3997.3	880.2	28.7 10.8	33.0	1010.2	678.7	0	1.000279
4030.0	880.1	28.6 10.6	32.7	1010.6	678.6	287.7	1.000279
4530.0	864.9	24.0 5.0	29.3	1010.3	672.8	287.7	1.000263
5000.0	850.0	22.2 4.7	32.0	998.7	670.8	287.7	1.000260
5530.0	835.0	20.0 4.6	34.5	985.7	669.3	287.7	1.000257
6000.0	820.3	19.5 4.4	37.1	972.8	667.7	287.7	1.000254
6530.0	805.9	18.1 4.2	39.6	960.2	666.2	286.8	1.000251
7000.0	791.7	16.8 3.8	42.2	947.7	664.6	280.0	1.000247
7530.0	777.8	15.4 3.4	44.7	935.5	663.0	275.5	1.000244
8000.0	763.9	14.0 3.2	48.2	923.3	661.4	275.8	1.000241
8500.0	750.2	12.5 3.1	52.6	911.3	659.8	277.4	1.000239
9000.0	736.7	11.1 2.9	57.0	899.4	658.1	279.4	1.000236
9500.0	723.5	9.7 2.5	61.1	887.7	656.4	282.2	1.000233
10000.0	710.3	8.4 1.5	61.6	875.7	654.9	284.5	1.000228
10500.0	697.3	7.1 -3	59.2	963.9	653.3	284.5	1.000221
11000.0	684.5	5.9 -5.0	45.3	852.6	651.6	283.5	1.000210
11530.0	671.9	4.7 -7.4	41.0	840.8	650.0	282.5	1.000206
12030.0	659.5	3.4 -9.3	38.5	829.1	648.5	282.3	1.000200
12500.0	647.2	2.6 -12.9	30.6	816.5	647.4	282.1	1.000193
13000.0	635.1	1.8 -16.2	24.7	803.9	646.3	280.3	1.000188
13500.0	623.2	0.6 -13.2	34.7	792.1	644.9	277.9	1.000188
14000.0	611.5	-0.6 -11.7	42.6	780.5	643.6	279.8	1.000187
14500.0	600.0	-1.3 -19.8	22.7	768.2	642.6	286.5	1.000178
15000.0	588.6	-1.3 -23.9	16.0	754.0	642.5	293.9	1.000172
15500.0	577.4	-1.7 -24.1	16.2	745.7	642.0	303.6	1.000169
16000.0	566.4	-3.0 -24.8	16.6	729.9	640.5	313.8	1.000167
16500.0	555.5	-4.4 -25.6	16.9	719.3	639.0	1.000164	
17000.0	544.9	-5.5 -26.4	17.3	708.8	637.5	1.000162	
17500.0	534.5	-6.7 -27.2	17.7	698.5	636.1	1.000159	

STATION ALTITUDE 3997.70 FEET MSL
18 MAY 84 1315 MDT
ASCENSION NO. 53

MANUFACTORY LEVELS
1790060053
S M R

TABLE 16

GEODETIC COORDINATES
32°48.034 LAT DEG
106.42307 LON DEG

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE			REL.HUM. PERCENT	WIND DATA	
		AIR DEGREES	DEWEPOINT DEGREES	CENTIGRADE		DIRECTION DEGREES (TM)	SPEED KNOTS
850.0	4996.	22.2	4.7	32.	287.7	20.7	
800.0	6709.	17.6	4.1	41.	283.5	7.4	
750.0	8504.	12.5	3.1	53.	277.4	12.3	
700.0	10307.	7.4	.6	62.	284.8	16.7	
650.0	12372.	2.8	-12.0	33.	282.2	19.4	
600.0	14481.	-1.3	-19.8	23.	286.4	21.4	
550.0	16746.	-4.9	-26.0	17.			

STATION ALTITUDE 3997.30 FEET MSL
16 MAY 84 1413 MDT
ASCENSION NO. 54

SIGNIFICANT LEVEL DATA
17900-00754
S W P
TABLE 17

GEOGRAPHIC COORDINATES
32°46'03" LAT DEG
106°42'30" LDN DEG

PRESSURE MILLIBARS MSL	GEOMETRIC ALTITUDE FEET	TEMPERATURE AIR DEPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT.
979.8	3997.3	29.8	5.8
955.0	4826.3	24.7	22.0
950.0	4994.6	26.2	20.0
808.2	6631.3	20.3	-2.1
739.4	8917.7	12.9	-3.8
700.0	10416.3	8.2	-3.9
490.9	10771.0	7.7	-8.8
673.4	11463.0	5.5	-9.5
670.5	11578.9	5.3	-6.0
653.7	12258.4	3.3	-3.9
652.0	12327.8	3.1	-7.7
635.7	13090.2	1.4	-11.0
627.2	13356.0	0.4	-6.9
624.6	13465.6	0.3	-10.2
609.4	14113.7	-0.9	-15.1
589.4	14985.6	-3.3	-14.3
565.6	16053.3	-5.4	-27.2
548.8	16830.7	-5.7	-26.2
523.4	18049.8	-6.6	-28.2
500.0	19217.9	-9.6	-30.0
400.0	24754.5	-21.8	-40.7

STATION ALTITUDE 3697.30 FEET MSL
16 MAY 84 1413 MDT
ASCENSION NO. 54

UPPER AIR DATA
17900060054
S W R
TABLE 18

GEODETIC COORDINATES
32.46034 LAT DEG
106.42307 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT	6M/CUBIC METER	SOUND METER	SPEED OF WIND DATA	DIRECTION SPEED OF WIND DATA	INDEX OF REFRACTION
3997.3	879.8	29.8	5.8	22.0	1007.7	679.4	278.9	1.000263
4000.0	879.7	29.8	5.8	22.0	1007.6	679.4	278.9	1.000263
4500.0	864.7	26.7	2.4	20.8	1001.6	675.7	278.9	1.000254
5000.0	849.8	26.2	-2	20.0	997.0	672.7	278.9	1.000247
5500.0	835.1	22.8	-8	20.7	980.3	671.1	278.9	1.000243
6000.0	820.5	21.5	-1.5	21.4	967.9	669.5	275.9	1.000240
6500.0	806.2	20.1	-2.1	22.2	955.4	667.9	281.3	1.000236
7000.0	791.9	18.9	-2.3	24.1	943.2	666.3	293.3	1.000233
7500.0	777.9	17.1	-2.6	25.9	931.3	664.6	295.3	1.000230
8000.0	764.1	15.0	-2.9	27.7	919.5	662.8	302.3	1.000227
8500.0	750.5	14.1	-3.4	29.5	907.9	661.1	303.7	1.000224
9000.0	737.2	12.6	-3.8	31.6	896.5	659.4	302.6	1.000221
9500.0	723.8	11.1	-3.7	35.3	885.0	657.6	301.9	1.000219
10000.0	710.7	9.5	-3.8	38.9	873.8	655.8	301.1	1.000217
10500.0	697.8	8.1	-5.0	39.2	862.6	654.1	301.4	1.000212
11000.0	685.1	7.0	-9.0	31.0	850.5	652.6	301.8	1.000204
11500.0	672.5	5.4	-7.5	38.7	839.3	650.9	299.7	1.000204
12000.0	660.0	4.1	-3.9	56.0	827.3	649.5	293.5	1.000207
12500.0	647.8	2.7	-8.5	43.5	816.6	647.6	288.1	1.000198
13000.0	635.7	1.4	-11.0	39.0	805.6	646.0	282.1	1.000193
13500.0	623.8	0.2	-10.5	44.4	793.5	644.7	276.3	1.000191
14000.0	612.0	-7	-14.2	15.1	781.6	643.5	271.7	1.000185
14500.0	600.5	-2.0	-14.7	37.0	770.6	641.9	274.7	1.000182
15000.0	589.1	-3.5	-16.5	41.6	759.6	640.5	278.7	1.000180
15500.0	577.8	-4.3	-19.4	29.5	748.1	639.0	284.2	1.000173
16000.0	566.8	-5.3	-26.3	17.3	736.9	637.7	291.5	1.000168
16500.0	555.9	-5.6	-26.0	17.1	723.4	637.4	297.7	1.000165
17000.0	545.2	-5.8	-26.4	17.7	710.1	637.1	302.8	1.000162
17500.0	534.7	-6.2	-27.3	16.9	697.6	636.7	308.4	1.000159
18000.0	524.4	-6.6	-26.1	16.1	685.5	636.2	312.9	1.000156
18500.0	514.3	-7.0	-28.9	16.4	674.8	634.8	318.1	1.000153
19000.0	504.3	-9.0	-29.7	16.8	664.9	633.2	321.9	1.000151
19500.0	494.5	-10.4	-30.6	16.9	654.7	631.8	321.9	1.000148
20000.0	484.5	-11.3	-31.5	16.9	644.4	630.5	322.0	1.000146
20500.0	474.8	-12.4	-34.5	16.8	634.2	629.1	321.7	1.000143
21000.0	465.3	-13.5	-35.5	15.7	624.2	627.8	320.7	1.000141
21500.0	456.1	-14.0	-34.4	16.6	614.6	626.5	319.6	1.000139
22000.0	447.0	-15.7	-35.4	16.5	604.7	625.1	319.4	1.000136
22500.0	438.0	-16.8	-36.4	16.4	595.2	623.8	318.6	1.000134
23000.0	429.3	-17.9	-37.3	16.3	585.9	622.4	317.3	1.000132

STATION ALTITUDE 3997.30 FEET MSL
16 MAY 86 1413 MDT
ASCENSION NO. 5.

UPPER AIR DATA
1790060054
S W R

GEODETIC COORDINATES
32.68034 LAT DEG
106.42307 LON DEG

TABLE 18 Con't

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIP DEGREES	REL.HUM. DEWPONT PERCENT	SPEED OF SOUND METER KNOTS	WIND DATA DIRECTION DEGREES(14) KNOTS	INDEX OF REFRACTION
23500.0	420.7	-19.0	-18.3	16.2	576.7	1.000130
24000.0	412.4	-20.1	-18.5	16.1	567.7	1.000128
24500.0	404.1	-21.2	-40.2	16.0	558.8	1.000126

STATION ALTITUDE 3997.70 FEET MSL
18 MAY 84 1413 MDT
ASCENSION NO. 54

MANDATORY LEVELS
1790060554
S N R

TABLE 19

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE DEGREES CENTIGRADE	REL.HUM. PERCENT	WIND DATA	
				AIR DEPOINT	DIRECTION DEGREES (TN) KNOTS
850.0	4991.	24.2	20.	278.9	9.7
800.0	6714.	19.5	-2.2	290.5	2.3
757.0	8516.	14.1	-3.4	303.7	13.6
700.0	10405.	8.2	-3.0	301.3	13.5
650.0	12396.	2.9	-8.1	42.0	289.1
600.0	14504.	-2.0	-14.7	44.0	12.9
557.0	16753.	-5.7	-26.2	37.	274.8
500.0	19191.	-9.6	-39.0	18.	19.6
450.0	21631.	-15.4	-35.1	300.3	24.4
400.0	24713.	-21.8	-40.7	321.9	18.5

GEODETIC COORDINATES
32.46034 LAT DEG
106.42307 LON DEG

STATION ALTITUDE 4003.67 FEET MSL
18 MAY 84, 1413 NDT
ASCENSION NO. 6

SIGNIFICANT LEVEL DATA

1-90200006

DN

GEOGRAPHIC COORDINATES
32.5720 LAT DEG
106.29439 LON DEG

TABLE 20

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE DEGREES CENTIGRADE	AIR DEWPPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT
878.6	4303.7	28.0	8.6	30.0
871.8	4222.6	26.7	5.1	25.0
850.0	4952.4	24.1	2.9	25.0
722.0	9530.0	19.8	-1.3	63.0
710.7	9961.4	9.5	-1	52.0
700.0	10274.3	8.1	-2.5	47.0
679.8	11166.3	5.8	-1.3	60.0
669.0	11596.3	4.6	-3.9	54.0
646.7	12500.6	1.8	-2.1	75.0
638.5	12839.2	1.9	-9.3	43.0
636.1	12939.3	2.9	-12.5	31.0
630.5	13174.2	1.9	-12.3	34.0
600.7	14450.6	-1.2	-16.9	29.0
565.5	16026.1	-3.6	-23.8	19.0
514.3	18461.2	-10.1	-27.7	22.0
500.0	19174.6	-11.1	-29.6	20.0
483.0	20046.8	-11.9	-30.8	19.0
454.8	21556.7	-16.2	-32.7	19.0
402.3	24575.5	-21.6	-39.8	17.0

STATION ALTITUDE 4003.69 FEET MSL
16 MAY 86 1413 MDT
ASCENSION NO. 5

UPPER AIR DATA
1902000006
DOW
TABLE 21

GEODETIC COORDINATES
32°57'20" LAT DEG
106.29439 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT CENTIGRADE	REL.HUM. PERCENT	GEOM/CUBIC METER	SOUND KNOTS	DIRECTION DEGREES(TW)	SPEED KNOTS	WIND DATA REFRACTION INDEX
4003.7	876.4	28.0	8.8	30.0	1011.2	677.7	120.0	9.9	1.000273
4500.0	863.4	25.7	4.2	25.0	1002.8	674.7	127.5	8.0	1.000259
5000.0	848.6	24.0	2.9	25.2	991.6	672.6	139.4	6.4	1.000253
5500.0	833.6	22.5	2.7	27.2	978.9	671.0	158.1	5.1	1.000250
6000.0	818.3	21.1	2.4	29.1	966.3	669.3	153.5	6.7	1.000247
6500.0	804.4	19.0	2.1	31.1	954.0	667.7	208.7	5.3	1.000244
7000.0	790.2	18.4	1.7	33.1	941.8	666.0	223.5	6.1	1.000241
7500.0	776.2	16.7	1.2	35.0	929.9	664.3	234.0	7.1	1.000237
8000.0	762.5	15.2	0.7	37.0	918.1	662.6	261.8	8.6	1.000234
8500.0	749.0	13.6	0.1	38.9	906.5	660.9	250.4	9.6	1.000230
9000.0	735.8	12.3	-0.5	40.9	895.0	659.2	257.0	11.0	1.000227
9500.0	722.8	10.9	-1.2	42.9	881.9	657.5	262.1	12.4	1.000223
10000.0	709.7	9.4	-0.1	51.5	872.3	655.9	267.0	13.7	1.000223
10500.0	696.8	7.7	-2.3	49.1	861.7	653.8	271.0	15.1	1.000217
11000.0	684.0	6.3	-1.5	57.3	850.1	652.2	272.9	16.7	1.000216
11500.0	671.4	4.9	-1.3	55.3	839.0	650.5	273.1	18.6	1.000210
12000.0	659.0	3.3	-0.9	63.4	827.9	648.7	273.0	20.5	1.000209
12500.0	646.7	1.8	-2.1	75.0	816.9	667.0	271.5	22.7	1.000208
13000.0	634.6	2.6	-12.5	31.8	800.5	667.4	270.2	24.9	1.000190
13500.0	622.6	1.1	-13.4	32.7	790.0	645.6	271.8	25.1	1.000187
14000.0	611.1	-1.1	-15.3	30.8	778.7	664.1	274.7	24.5	1.000183
14500.0	599.6	-1.3	-17.1	28.7	767.5	662.7	277.7	26.0	1.000179
15000.0	588.2	-2.0	-19.1	25.5	755.1	661.7	283.5	22.9	1.000175
15500.0	577.6	-2.8	-21.3	22.3	743.0	660.8	290.7	21.8	1.000171
16000.0	566.1	-3.6	-23.4	19.2	731.0	659.8	298.5	21.2	1.000168
16500.0	555.2	-4.9	-24.5	19.6	720.5	638.3	304.1	21.7	1.000165
17000.0	544.4	-6.2	-25.3	20.2	710.1	636.7	308.6	22.7	1.000162
17500.0	533.9	-7.5	-26.1	20.6	699.9	635.1	312.6	23.7	1.000160
18000.0	523.6	-8.9	-26.9	21.4	689.9	633.5	314.1	23.8	1.000157
18500.0	513.5	-10.2	-27.8	21.9	679.9	631.9	315.5	23.9	1.000155
19000.0	503.5	-10.9	-29.1	20.5	668.6	631.1	316.3	23.3	1.000152
19500.0	493.6	-11.6	-30.6	19.6	656.7	630.6	316.5	22.2	1.000149
20000.0	483.9	-11.9	-30.7	19.1	644.9	629.9	316.7	21.1	1.000146
20500.0	474.3	-12.6	-31.3	19.0	634.0	629.0	316.7	19.9	1.000144
21000.0	465.3	-13.4	-32.0	19.0	623.3	628.0	315.2	18.8	1.000141
21500.0	455.6	-14.1	-32.6	19.0	612.8	627.1	315.5	17.9	1.000139
22000.0	446.6	-15.3	-33.8	18.7	603.2	625.7	317.7	17.3	1.000136
22500.0	437.7	-16.5	-34.9	18.4	593.8	624.3	318.5	16.7	1.000134
23000.0	428.9	-17.6	-36.1	18.0	584.6	622.8	317.7	16.0	1.000132
23500.0	420.6	-18.6	-37.3	17.7	575.5	621.3	317.7	15.3	1.000130

STATION ALTITUDE 4967.69 FEET MSL
16 MAY 84 1413 MDT
ASCENSION NO. 6

UPPER AIR DATA
1790200006
DON

TABLE 21 Con't

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT PERCENT	REL.HUM. CENTIGRADE	SPEED OF SOUND METER KNOTS	WIND DATA DIRECTION DEGREES(TN) KNOTS	INDEX OF REFRACTION
24030.0	411.8	-20.0	-78.5	17.6	566.6	619.9	1.000127
24530.0	403.5	-21.2	-39.7	17.0	557.9	618.6	1.000125

GEODETIC COORDINATES
32.57209 LAT DEG
106.29439 LON DEG

STATION ALTITUDE 4000 FEET MSL
16 MAY 84 1413 MDT
ASCENSION NO. 6

MANUFACTORY LEVELS
1390200006
004

TABLE 22

GEODETIC COORDINATES
32.5729 LAT DEG
106.29439 LON DEG

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE		REL.HUM. PERCENT	WIND DATA	
		AIR DEGREES	DEWPNT CENTIGRADE		DIRECTION DEGREES (TN)	SPEED KNOTS
857.0	4949.	24.1	2.9	25.	137.9	6.5
800.0	6672.	19.2	2.0	32.	214.8	5.6
750.0	8674.	13.9	-1	39.	250.1	9.5
700.0	10364.	8.1	-2.5	47.	270.0	14.7
650.0	12352.	2.2	-2.3	72.	271.9	22.1
600.0	14464.	-1.2	-17.0	29.	277.6	24.0
550.0	16724.	-5.5	-24.9	20.	306.3	22.1
500.0	19148.	-11.1	-29.6	20.	316.4	22.9
450.0	21786.	-14.8	-33.3	19.	316.4	17.5

STATION ALTITUDE 3995.5 FT. MSL
15 MAY 64 1512 MDT
ASCENSION NO. 24

SIGNIFICANT LEVEL DATA
174502Z 0286
WHITE SANDS
TABLE 23

GEODETIC COORDINATES
32.40743 LAT DEG
106.37033 LONG DEG

PRESSURE	GEOMETRIC ALTITUDE	TEMPERATURE AIR DEPOINT	REL. HUM. PERCENT
millibars	mi. & feet	DEGREES CENTIGRADE	
379.6	3989.0	29.8	25.0
461.3	4571.1	27.6	25.0
553.0	4969.6	26.6	27.0
773.2	7636.6	17.1	15.0
750.0	15384.3	8.9	52.0
474.3	11397.2	5.7	62.0
458.2	12045.9	4.1	56.0
439.3	17177.2	0.7	57.0
413.0	12931.1	-1.1	42.0
566.3	15095.2	-2.9	14.0
513.6	15261.0	-9.5	24.0
512.0	12676.2	-9.2	27.4
540.0	19176.5	-10.7	23.0
491.1	15671.4	-11.9	20.0
478.7	27312.1	-12.1	19.0
454.0	21597.1	-14.3	14.0
430.0	24773.6	-22.3	18.0
459.6	27321.9	-28.6	21.0

STATION ALTITUDE 3995.00 ft. ~51
19 MAY 84 1512 MDT
PRECIPITATION NO.

WHITE SANDS
UNEFER AER DATA

TABLE 24

GEOMETRIC ALTITUDE PSL FEET	PRESSURE MILLIGARS	TEMPERATURE AIR DEGREES CENTIGRADE	DEWPOINT DEGREES CENTIGRADE	REFLUM. PERCENT	RH/CUBIC METER	DENSITY KNOTS	WIND DATA		
							DIRECTION DEGREES (NM)	SPEED KNOTS	SPEED KNOTS
39 59.2	872.5	22.5	6.5	22.0	1004.1	679.5	290.0	0.9	1.000244
40 59.3	878.3	23.5	6.4	22.0	1005.0	679.4	289.9	0.9	1.000244
45 30.0	842.3	27.0	5.8	25.0	998.7	677.0	286.6	0.7	1.000241
50 30.0	848.5	26.0	4.2	27.1	990.2	675.1	283.1	0.5	1.000240
55 30.0	855.7	22.4	3.0	24.6	977.4	671.5	279.5	0.3	1.000239
60 30.0	862.0	21.0	3.3	23.1	964.9	670.0	275.7	0.2	1.000244
65 30.0	868.8	20.2	2.8	21.0	957.4	668.4	271.9	0.1	1.000245
70 0.0	790.7	19.0	2.3	22.1	946.0	666.8	268.0	0.0	1.000242
75 0.0	776.9	17.5	1.7	24.6	928.0	665.5	266.1	0.0	1.000240
80 30.0	763.1	16.0	1.4	27.2	915.6	663.6	264.2	0.1	1.000239
85 30.0	749.4	14.5	1.2	26.3	904.5	661.9	265.1	0.1	1.000232
90 30.0	736.0	13.0	0.9	25.4	892.9	660.2	265.9	0.1	1.000229
95 30.0	722.3	11.5	0.5	26.5	981.5	658.4	269.7	0.3	1.000226
100 0.0	709.0	10.0	0.0	29.6	970.1	656.7	274.5	0.6	1.000223
105 0.0	697.5	8.2	-0.4	32.1	955.0	654.9	270.0	10.1	1.000220
110 0.0	684.0	7.0	-0.7	30.1	842.7	653.1	278.7	12.6	1.000217
115 0.0	671.7	5.0	-1.4	31.0	837.3	651.3	278.1	15.1	1.000215
120 0.0	659.2	4.3	-1.5	30.4	825.6	649.8	275.2	17.0	1.000207
125 0.0	647.1	3.4	-1.9	30.4	814.6	648.0	272.8	18.9	1.000203
130 0.0	635.1	1.4	-6.4	36.8	807.8	646.3	273.2	19.3	1.000198
135 0.0	623.1	0.1	-5.9	30.6	797.9	644.6	273.5	19.6	1.000196
140 0.0	611.4	-1.1	-12.6	40.6	781.0	643.0	277.0	19.4	1.000196
145 0.0	599.5	-1.4	-15.9	30.8	769.5	641.9	262.6	19.3	1.000190
150 0.0	588.4	-2.7	-12.0	30.9	757.5	640.8	287.2	19.5	1.000174
155 0.0	577.1	-3.7	-23.9	15.1	745.9	639.6	292.1	20.2	1.000171
160 0.0	566.0	-4.6	-24.6	15.3	734.4	638.4	296.7	21.2	1.000169
165 0.0	555.1	-5.0	-25.4	15.6	723.1	637.1	299.7	22.3	1.000165
170 0.0	544.4	-5.9	-26.6	15.6	711.0	635.9	301.8	23.5	1.000162
175 0.0	534.0	-7.0	-27.0	15.8	701.1	634.6	303.4	24.3	1.000160
180 0.0	523.7	-9.0	-27.7	15.9	691.2	633.4	306.4	24.6	1.000157
185 0.0	513.5	-9.5	-27.6	15.8	677.9	632.9	307.2	24.3	1.000154
190 0.0	503.5	-10.4	-28.6	15.4	666.7	631.9	311.9	24.1	1.000152
195 0.0	493.7	-11.6	-28.0	15.0	655.7	630.2	313.5	23.6	1.000149
200 0.0	484.0	-12.4	-28.6	15.5	645.6	629.7	315.4	23.2	1.000146
205 0.0	474.4	-12.4	-27.4	15.0	635.7	629.2	316.7	22.5	1.000144
210 0.0	465.1	-12.1	-17.8	14.9	624.2	628.1	316.7	21.1	1.000141
215 0.0	455.9	-14.1	-23.6	14.3	612.0	627.0	316.7	19.7	1.000139
220 0.0	446.7	-15.3	-27.7	14.9	602.4	625.6	316.9	18.5	1.000136
225 0.0	437.7	-16.2	-24.9	14.9	592.4	624.1	318.4	16.8	1.000134
230 0.0	428.5	-17.0	-23.5	14.5	582.5	622.5	320.5	15.4	1.000132

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STATION ALTITUDE 79.9.0 FT. SL
13 MAY 86 1512 MDT
ASCENSION NO. -25

UPPER AIR DATA
1790020236
WHITE SANDS

GEODETIC COORDINATES
32°40'04" LAT DEG
106°57'33" LON DEG

TABLE 24 Con't

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	INDEX OF REFRACTION
2350.0	420.2	-19.2	18.4	576.3	670.9	721.4	14.9
2400.0	411.0	-20.3	18.2	567.6	619.3	521.1	15.6
2450.0	403.5	-21.3	14.1	559.0	617.8	120.7	16.3
2500.0	396.2	-23.3	15.3	550.3	616.4	318.4	16.4
2550.0	387.0	-24.2	41.4	561.5	614.7	315.2	16.2
2600.0	379.0	-25.4	41.9	527.9	613.2	1000122	16.2
2650.0	371.0	-26.5	42.7	526.4	611.7	1000120	16.2
2700.0	363.5	-27.6	43.5	516.1	610.2	1000116	16.2

STATION ALTITUDE 9,900 feet -51
18 MAY 84 1512 MDT
ASCENSION NO. -94

WEATHER STATION
1740070284
WHITE SANDS
TABLE 25

GEODETIC COORDINATES
32°40'43" LAT DEG
106°37'33" LON DEG

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE AIR		REL. HUM. PERCENT	WIND DATA	
		DEGREES	CENTIGRADE		DIRECTION DEGREES (TN)	SPEED KNOTS
82.0	4044.	24.4	4.7	27.	283.5	9.5
87.0	6672.	19.7	3.1	32.	270.6	9.1
75.0	5479.	14.6	-1.2	46.	265.1	9.1
73.0	10774.	8.9	-7.4	52.	278.0	9.9
65.0	12757.	3.2	-4.4	66.	273.2	18.5
62.0	14475.	-1.9	-16.8	31.	282.2	19.3
55.0	10727.	-6.7	-25.8	20.	300.7	22.9
53.0	19151.	-10.7	-29.7	29.	317.4	23.9
45.0	11709.	-14.0	-37.7	19.	316.7	16.8
40.0	74672.	-12.7	-40.7	18.	320.2	16.5

END

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